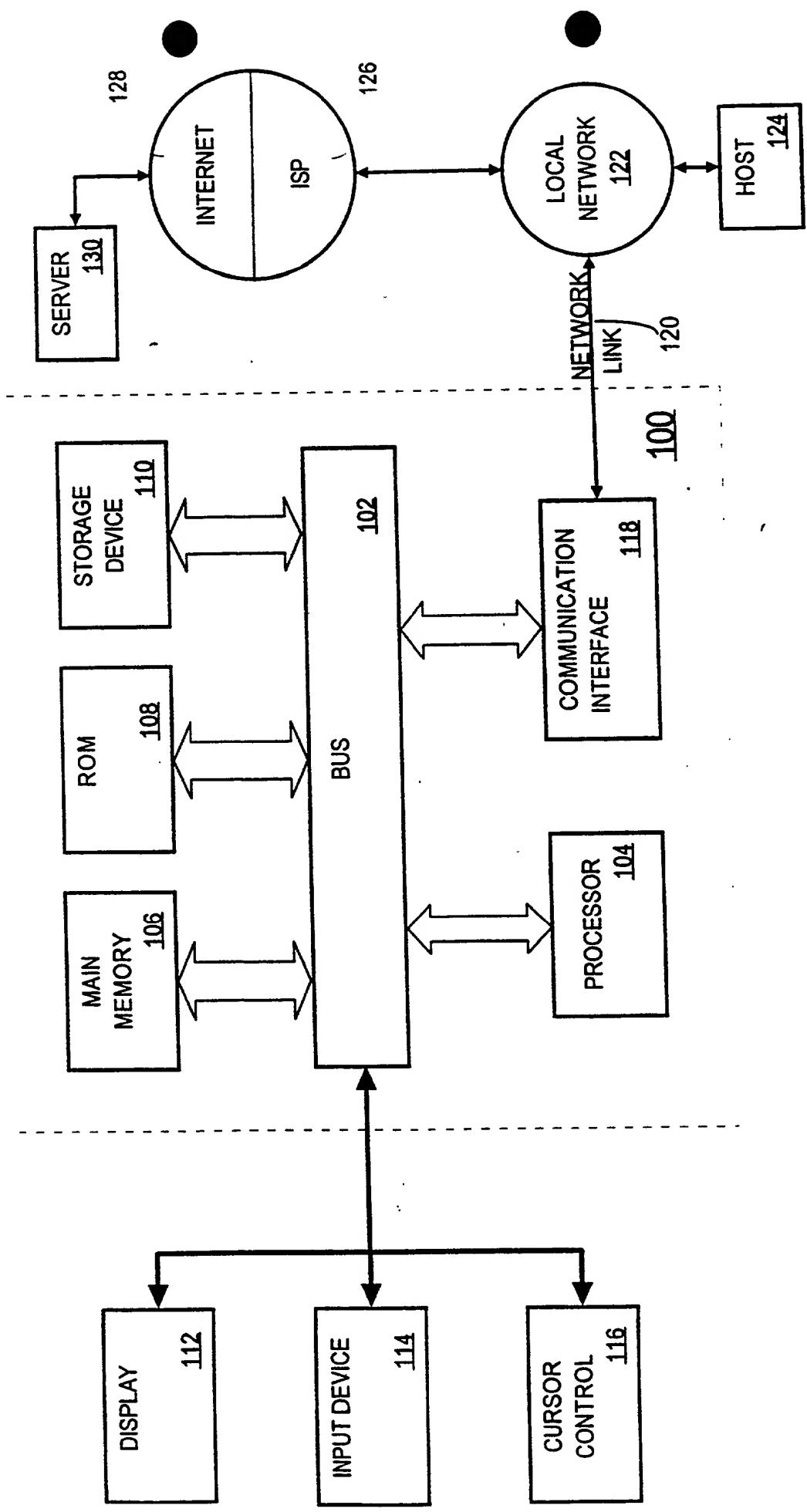


# FIG. 1



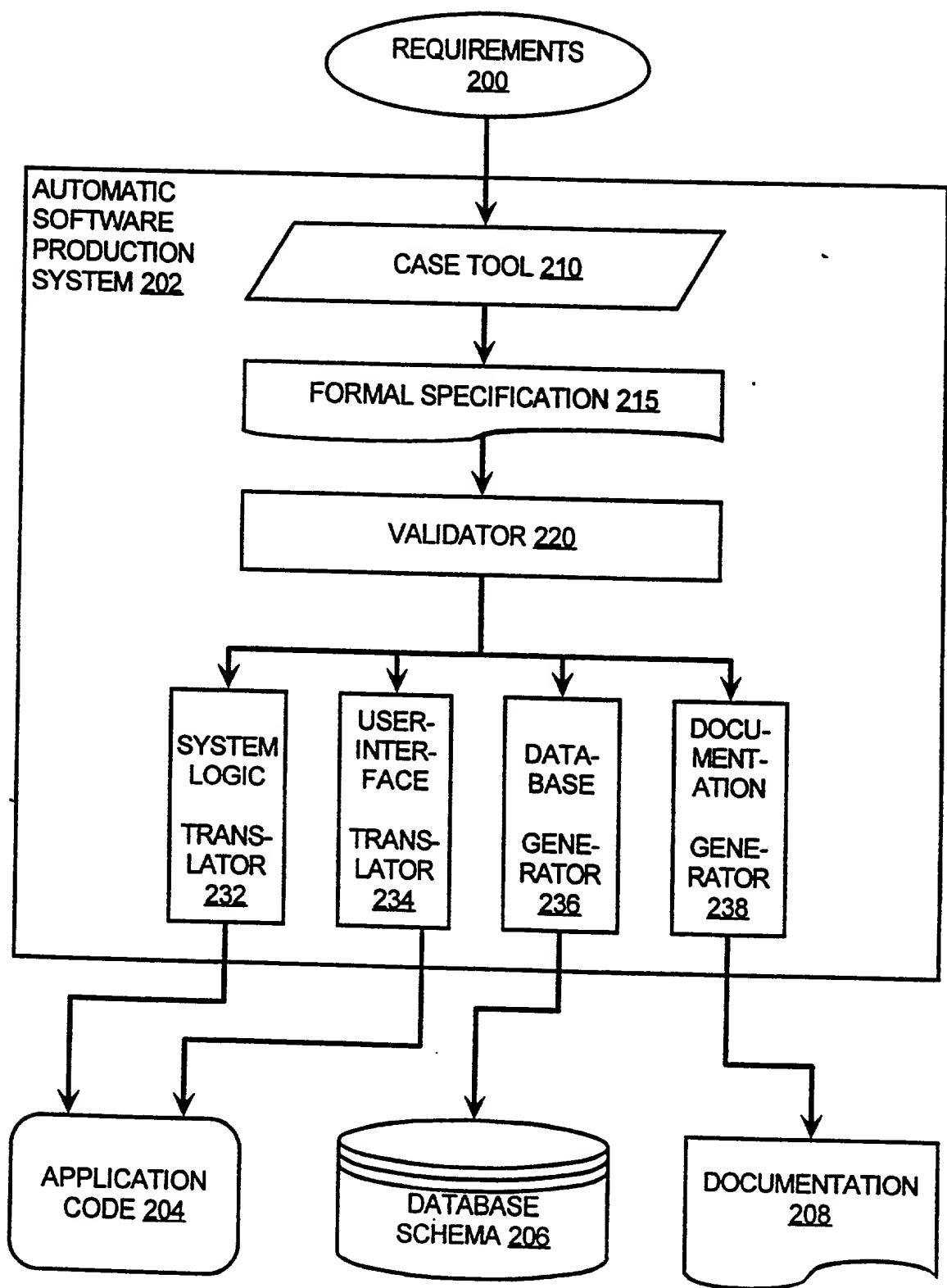


FIG. 2

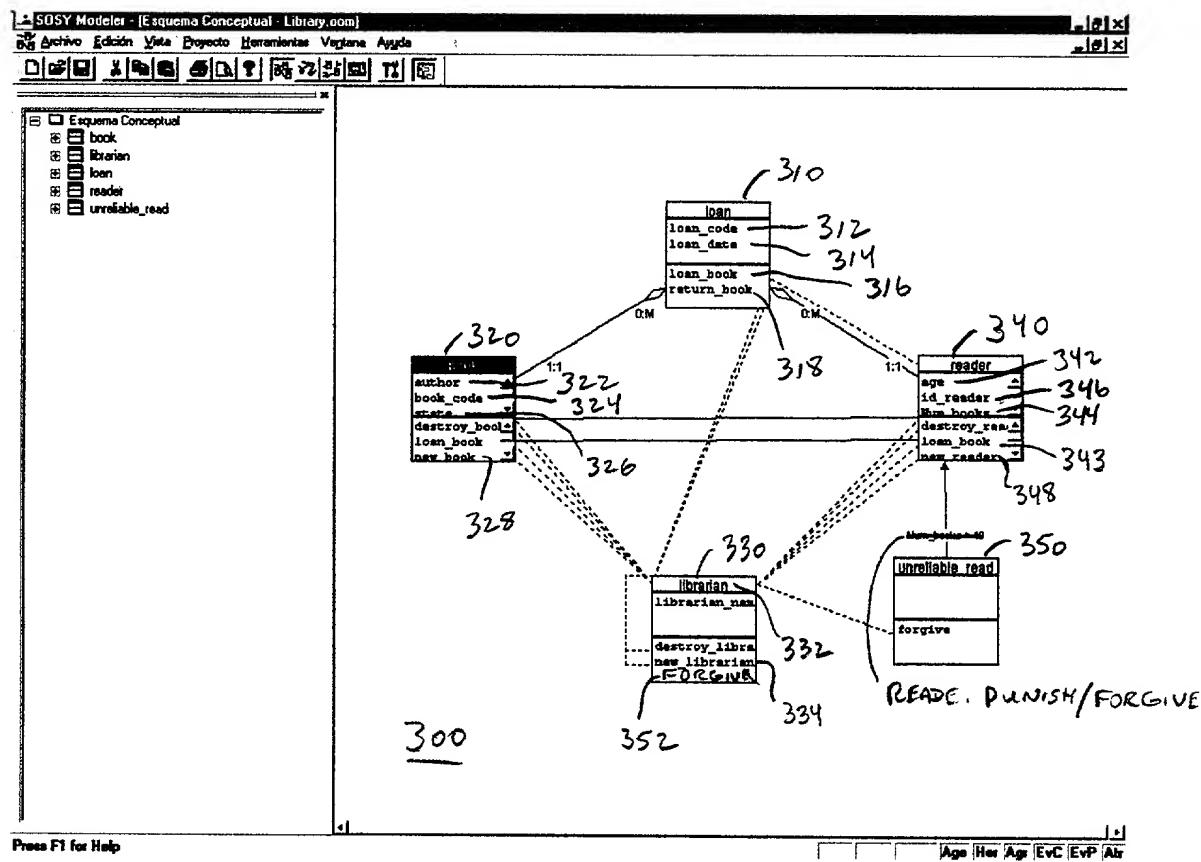


FIG. 3

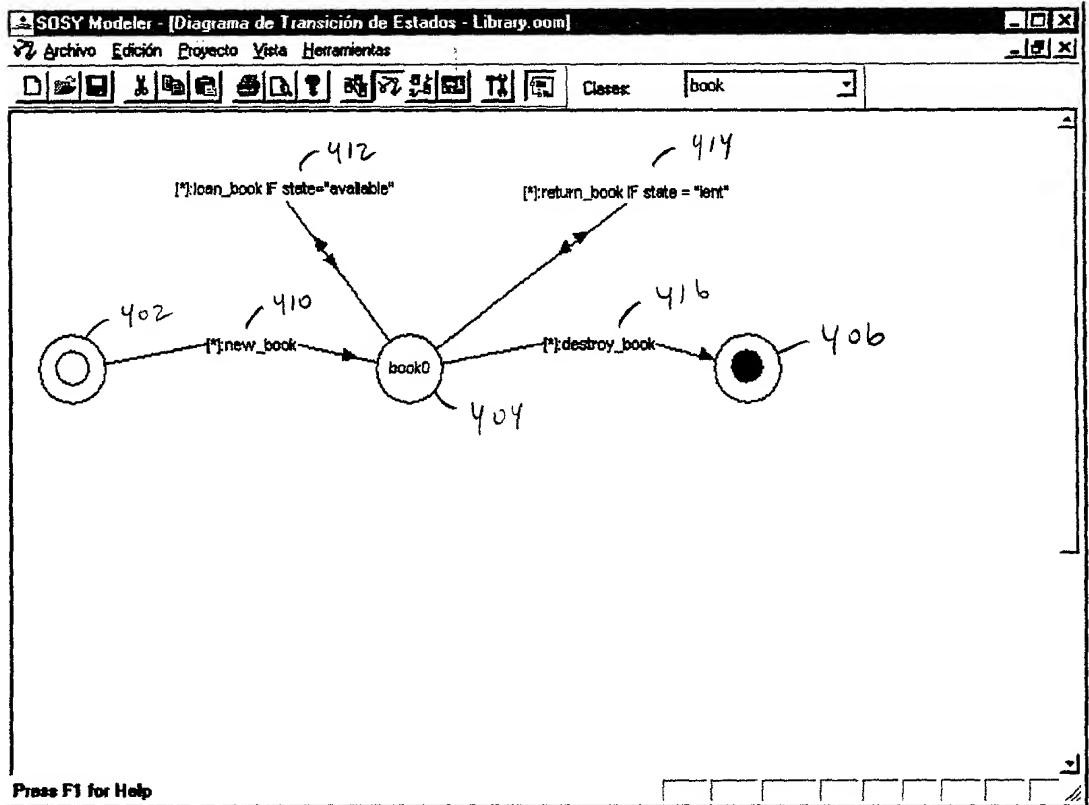


FIG. 4A

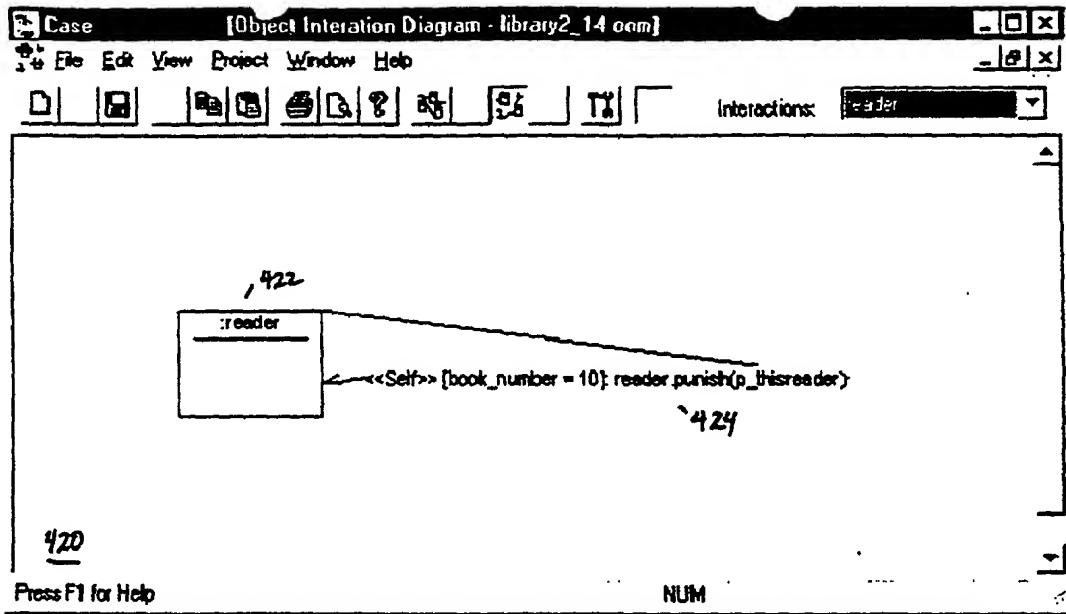


FIG. 4

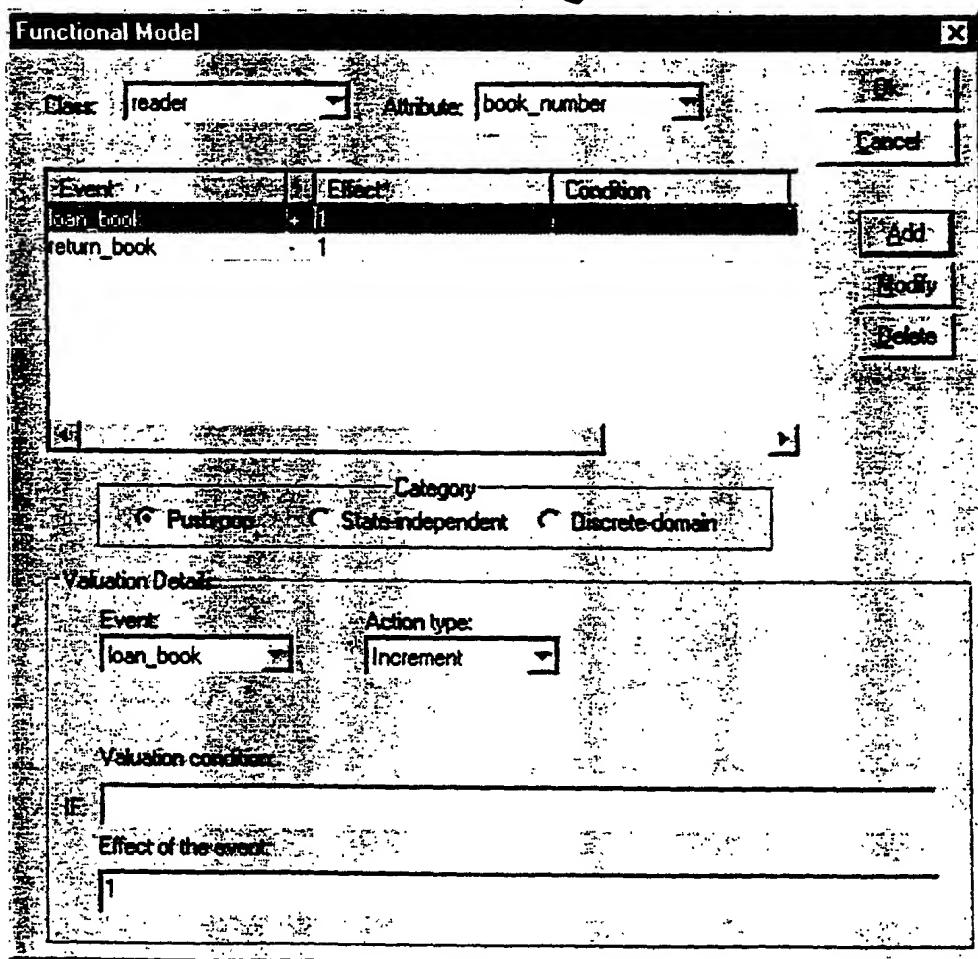


FIG. 5

## **FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES OF SYSTEM LOGIC TRANSLATORS WILL PERFORM**

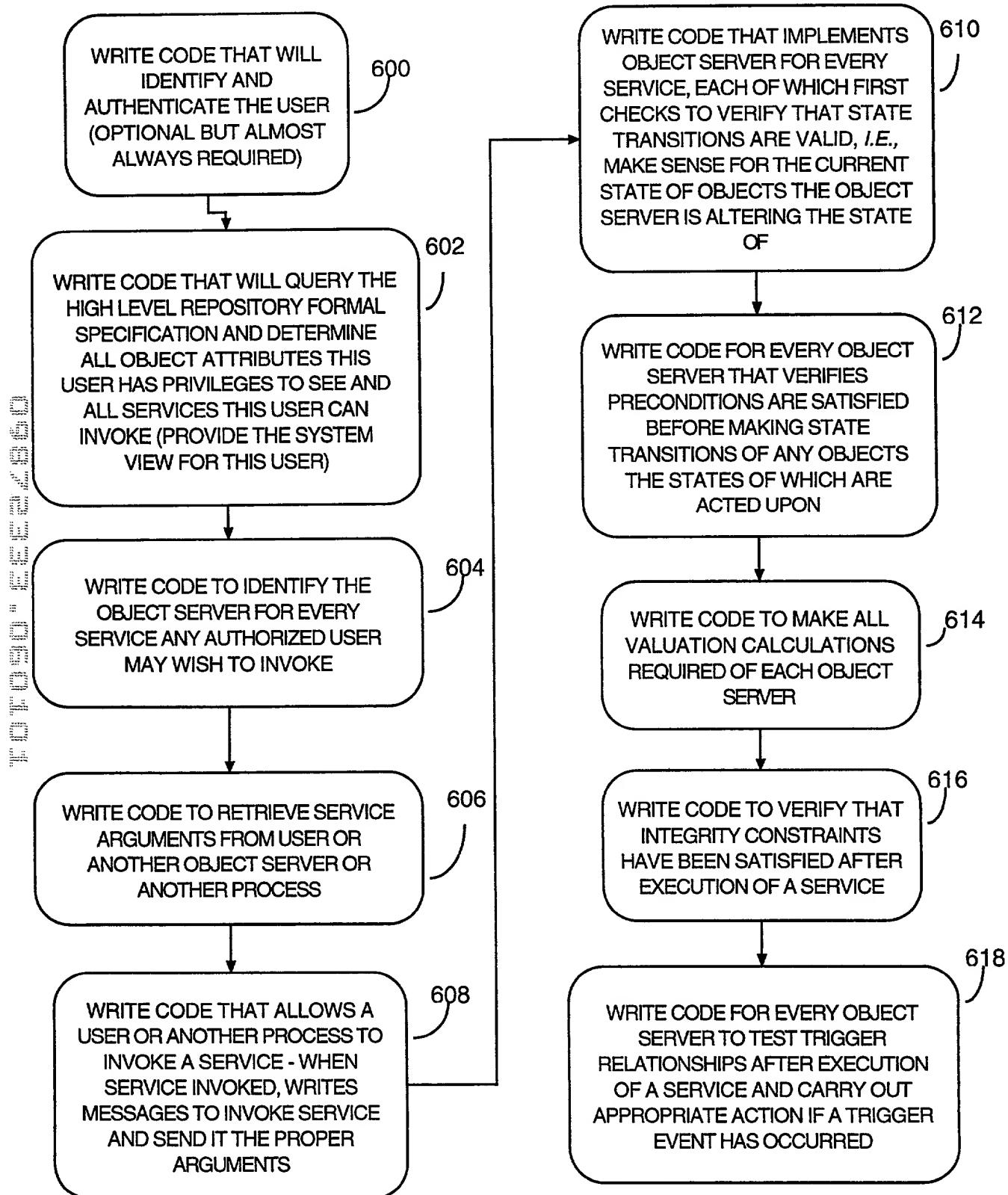


FIG. 6

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES IN THE USER INTERFACE  
TRANSLATOR SUBGENUS WILL PERFORM

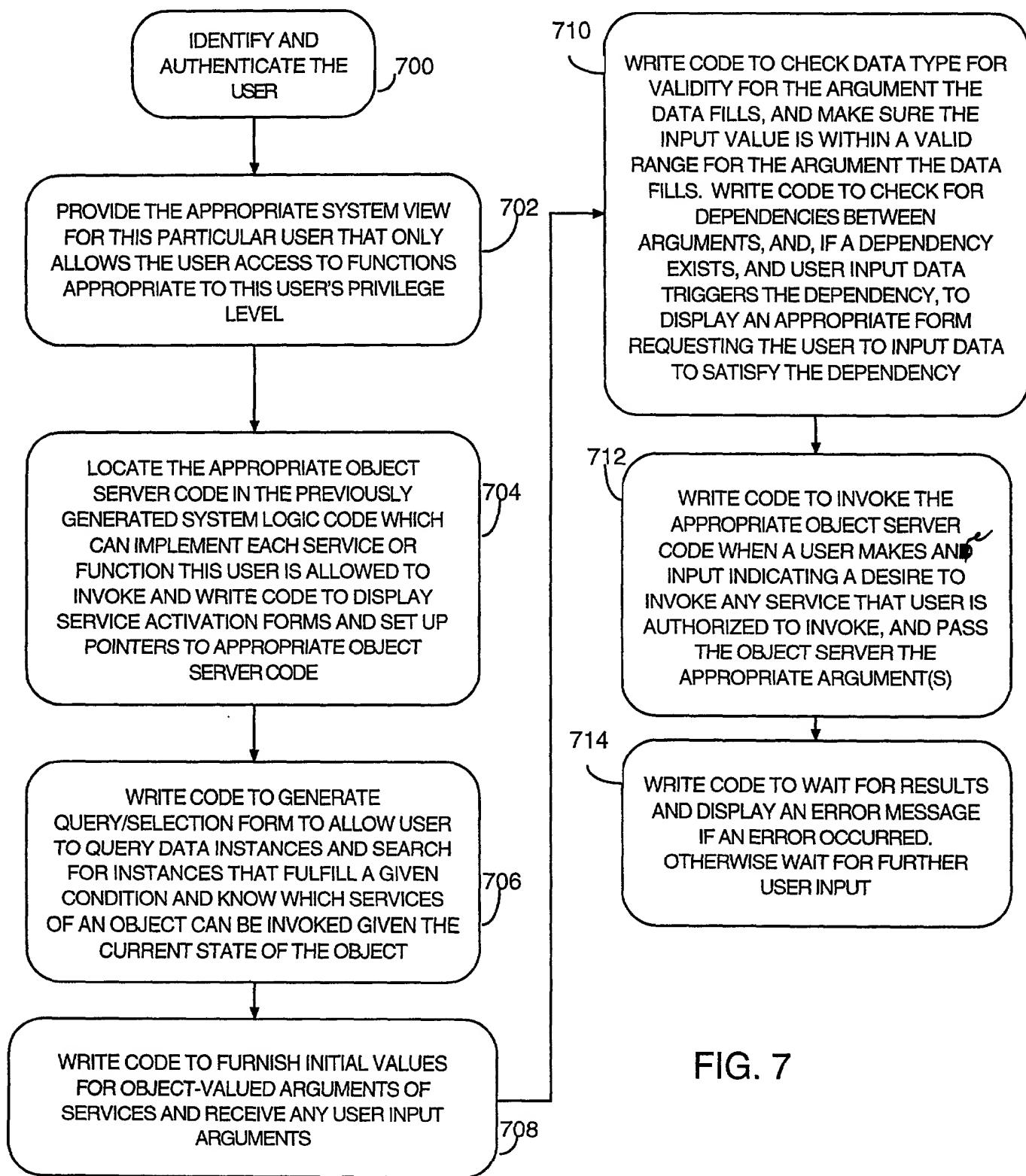


FIG. 7

100-101 200-201 300-301 400-401 500-501 600-601 700-701 800-801 900-901

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES IN THE DATABASE GENERATOR  
TRANSLATOR SUBGENUS WILL PERFORM

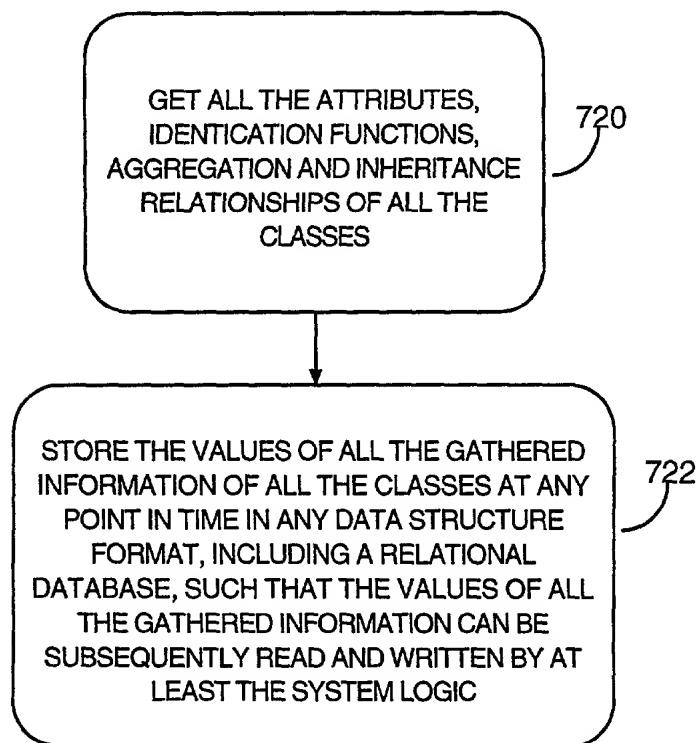
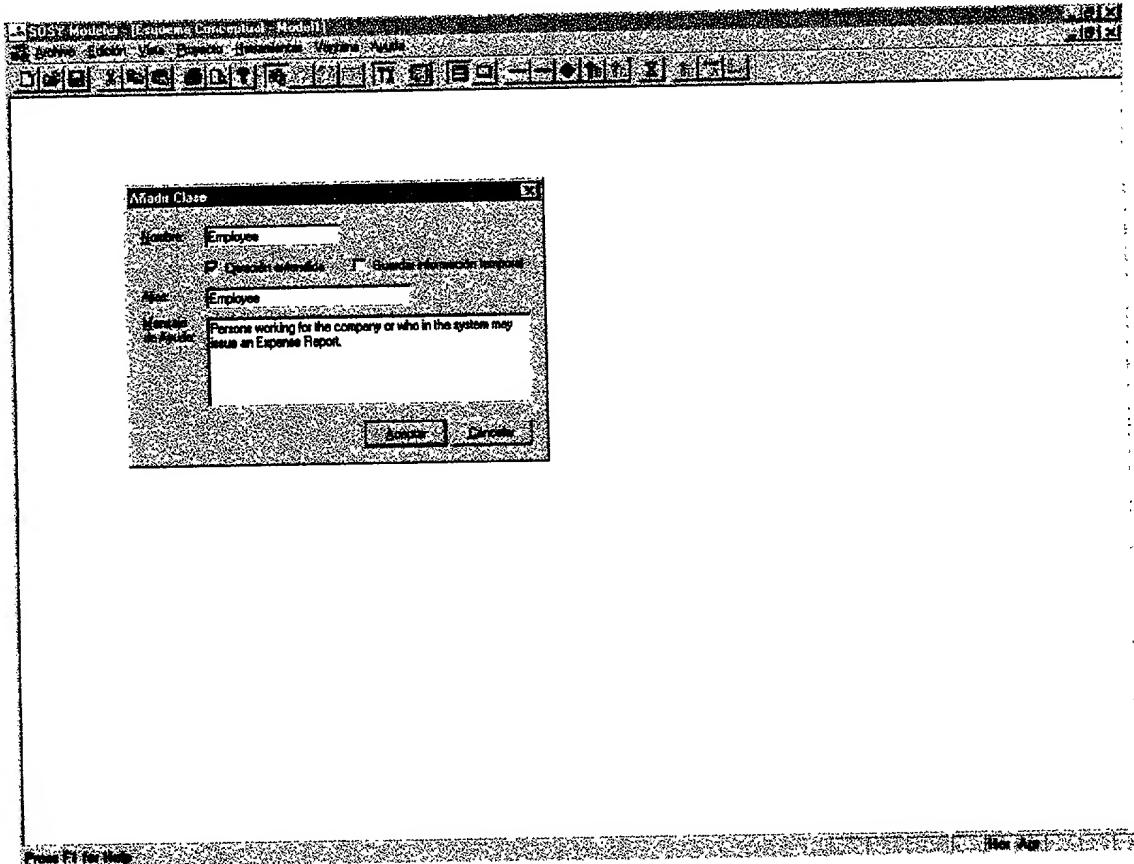


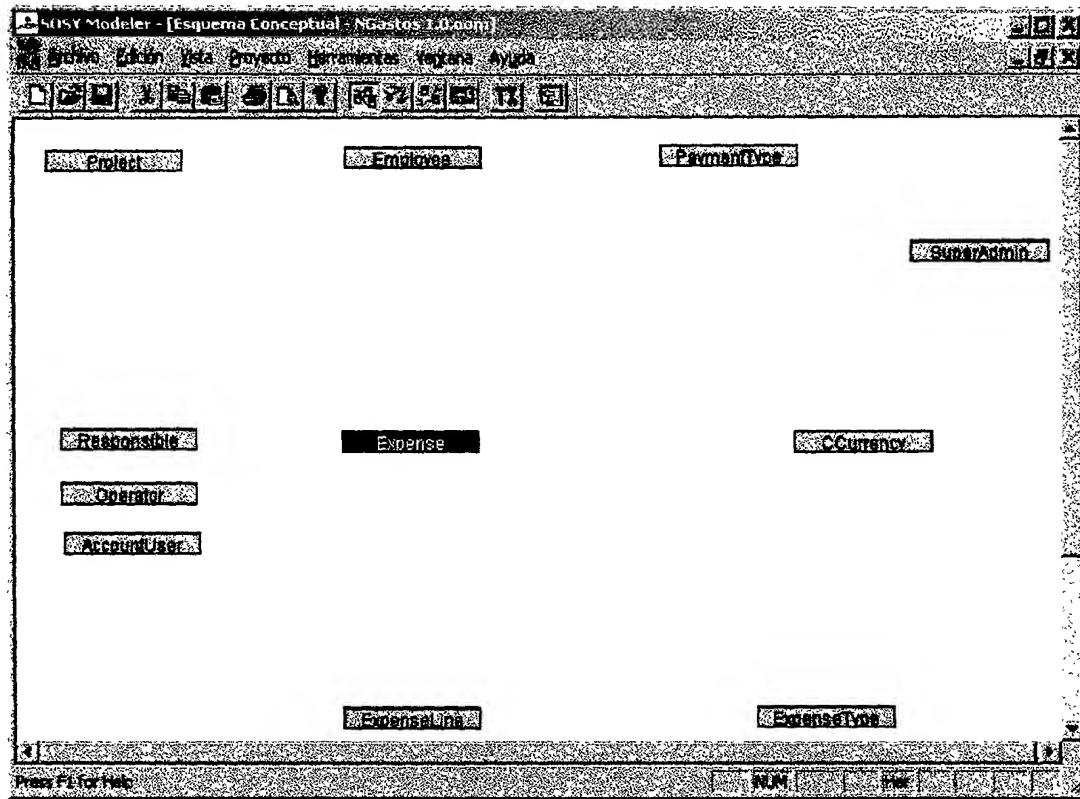
FIG. 8

0962433 - 0681034



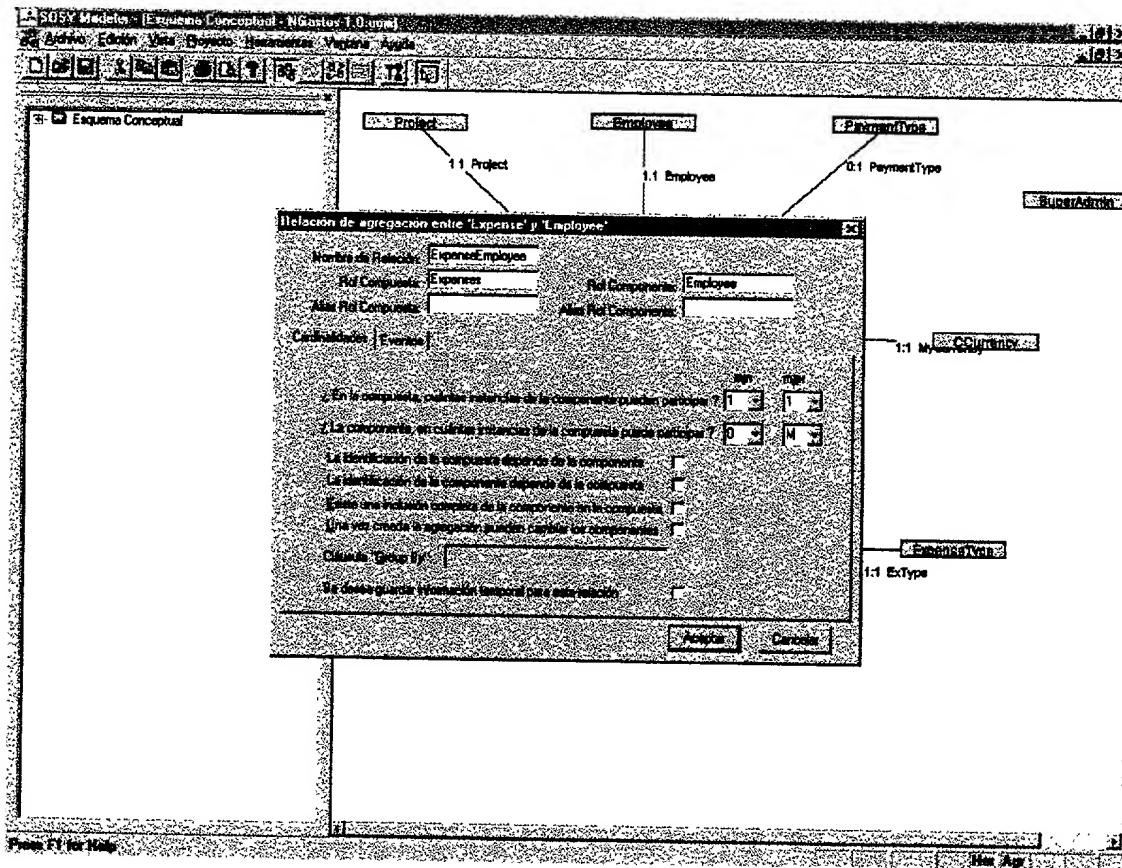
class creation dialog

FIG. 2A



DIALOG SHOWING ALL CLASSES NEEDED & CREATED  
IN EXPENSE MANAGEMENT SYSTEM

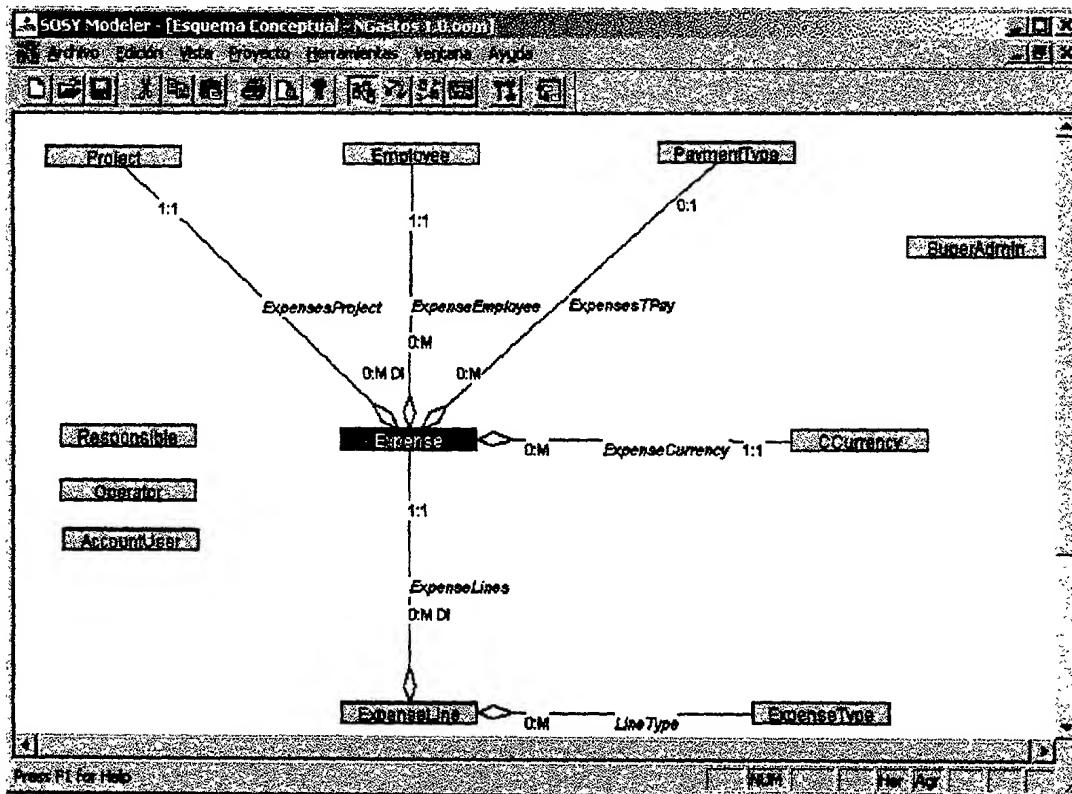
FIG. 9B



dialog to create and modify relationships between classes

FIG. 9C

~~This~~ figure shows relationships found with all their properties indicated.



GRAPHIC DIALOG TO CREATE  
RELATIONSHIPS BETWEEN CLASSES  
AND GRAPHICALLY SHOW THE  
RELATIONSHIPS SO CREATED

FIG. 10

Clase

Atributos | Servicios | Devoluciones | Restricciones | Ajustes | Transacciones | Relaciones | Generalidades

**Atributos**

| Nombre         | Tipo atributo | Tipo dato | Id. | Largo | Valor default | Puede ser nulo | Nulos |
|----------------|---------------|-----------|-----|-------|---------------|----------------|-------|
| PresentDate    | Constante     | Date      |     |       | today()       | Sí             | No    |
| Status         | Variable      | Int       |     | 0     | No            | No             |       |
| Cause          | Variable      | String    | 255 |       | Sí            | No             |       |
| AuthoDate      | Variable      | Date      |     |       | NULL          | No             | Sí    |
| AuthoComments  | Variable      | String    | 255 |       | NULL          | No             | Sí    |
| PaymentDate    | Variable      | Date      |     |       | NULL          | No             | Sí    |
| PtyComments    | Variable      | String    | 255 |       | No            | No             | Sí    |
| TotExpenses    | Derivado      | Real      |     |       |               |                |       |
| TotExpensesCus | Derivado      | Real      |     |       |               |                |       |
| Advances       | Variable      | Real      |     | 0     | Sí            | No             |       |
| AdvancedsCus   | Derivado      | Real      |     |       |               |                |       |
| Exchange       | Variable      | Real      |     |       | No            | Sí             |       |
| Balance        | Derivado      | Real      |     |       |               |                |       |
| BalanceCus     | Derivado      | Real      |     |       |               |                |       |

**Nombre:**  **Tipo Atributo:**  **Tipo Dato:**

Información Temporal  Notas >>

**Ajax:**

**Observaciones:**

Clase: Expense

(A)

Clase

Atributos | Servicios | Devoluciones | Restricciones | Ajustes | Transacciones | Relaciones | Generalidades

**Atributo:**

**Balance**

**Fórmulas de Derivación**

| Condición | Fórmula                |
|-----------|------------------------|
|           | TotExpenses - Advances |

**Condición:**   
**Fórmula:**

**Observaciones:**

Clase: Expense

(B)

F: G. 11

Clase

Navegar | Servicios | Desarrollados | Recuperados | Exportar | Imprimir | Personalizar | Generar informes

**Expense / Expenses**

| Nombre         | Características         |
|----------------|-------------------------|
| newExpense     | New                     |
| destroyExpense | Destroy                 |
| modif          |                         |
| close          |                         |
| authorize      |                         |
| approve        |                         |
| pay            |                         |
| rejectAutho    |                         |
| rejectPayment  |                         |
| inPaymentType  | Shared with PaymentType |
| forPaymentType | Shared with PaymentType |
| DELETEALL      | Tran                    |
| TPAY           | Tran                    |

**Relaciones:**

| Nombre        | Tipo de dato |
|---------------|--------------|
| p_thisExpense | Expense      |
| p_Cause       | String       |
| p_Advances    | Real         |
| p_Exchange    | Real         |

**Atributos:**

| Nombre            | Tipo de dato   |
|-------------------|--|
| Number            | Integer  |
| modify            | <input type="checkbox"/> Transacción<br><input checked="" type="checkbox"/> New <input type="checkbox"/> Destroy<br><input type="checkbox"/> Usar memo |
| Alta              | Edit a Expense Report  |
| Mensaje de Avisos | Allows to edit some data of an expense.  |
| Observaciones     |  |

**Acciones:**

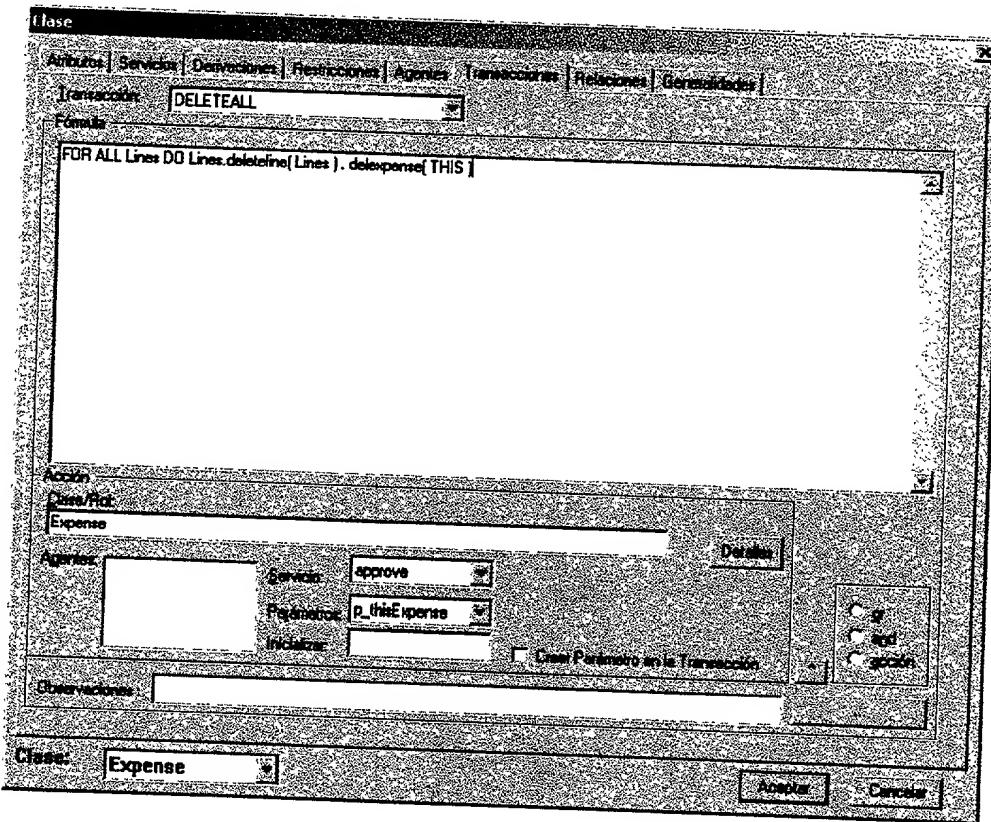
- [Nuevo](#)
- [Modificar](#)
- [Borrar](#)
- [Copiar](#)
- [Imprimir](#)
- [Exportar](#)
- [Personalizar](#)
- [Generar informes](#)

Clase: **Expense** [\[?\] Acciones](#) [\[?\] Personalizar](#)

SERVICES IN CLASS "EXPENSE"

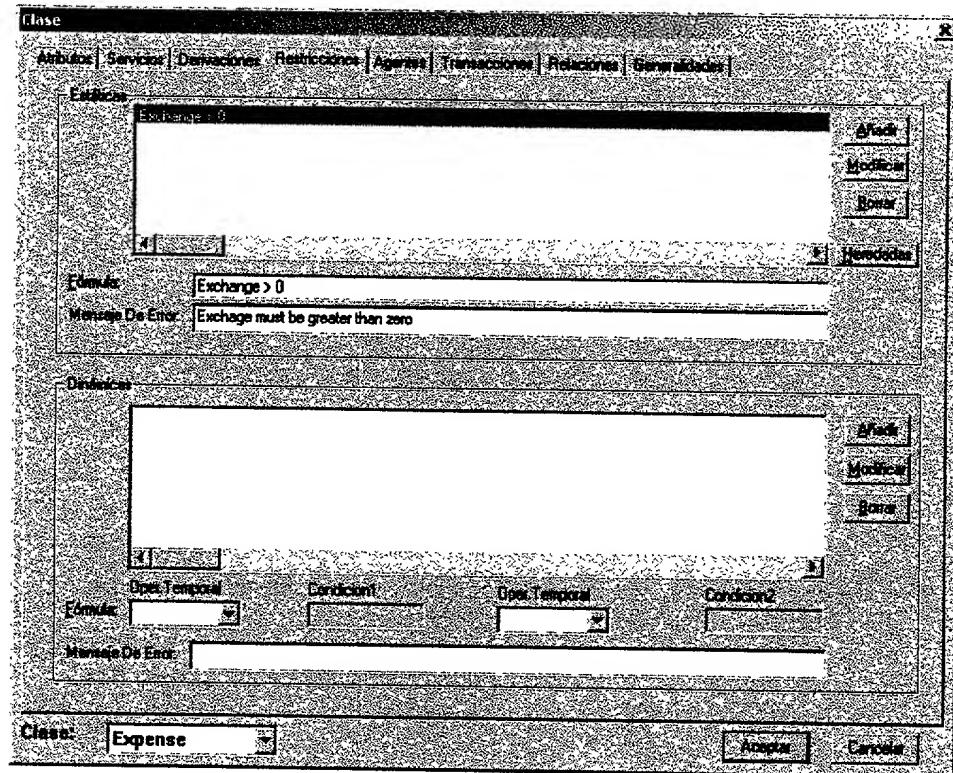
FIG. 12

*Next figure shows the formula for the "DELETEALL" transaction:*



DIALOG TO DEFINE FORMULA FOR "DELETEALL"  
TRANSACTION

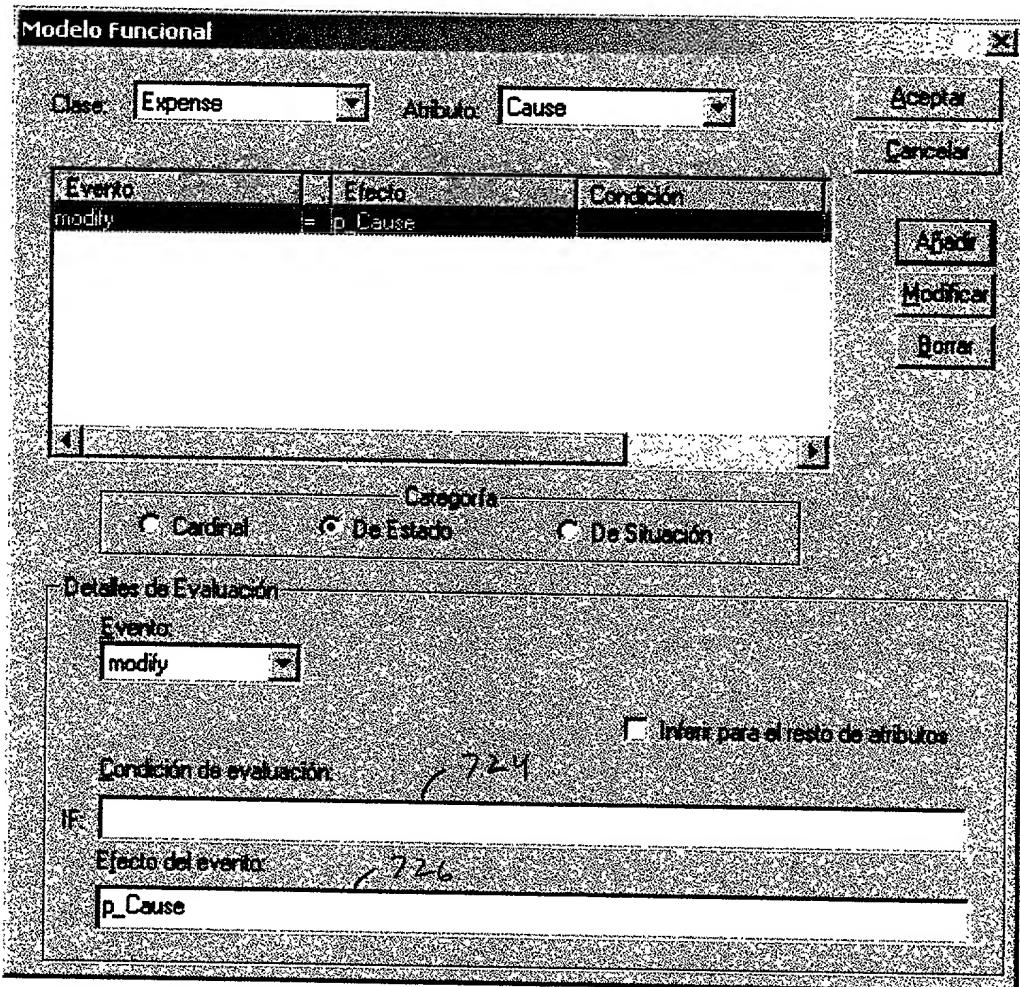
FIG. 13



INTEGRITY CONSTRAINTS OF EXPENSE CLASS

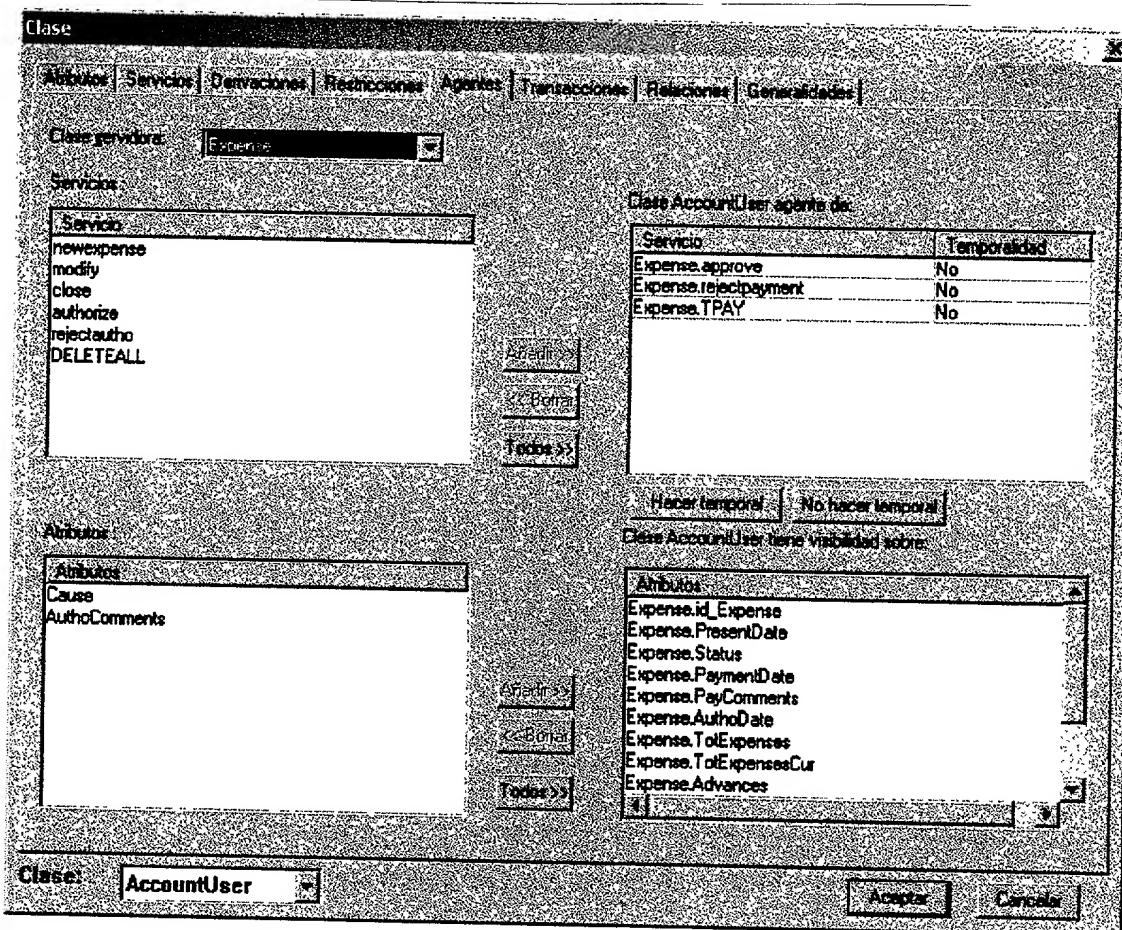
FIG. 14

The value of the attribute "Cause" will be loaded with the value of the argument "p\_Cause" of the event "modify" when "modify" was executed.



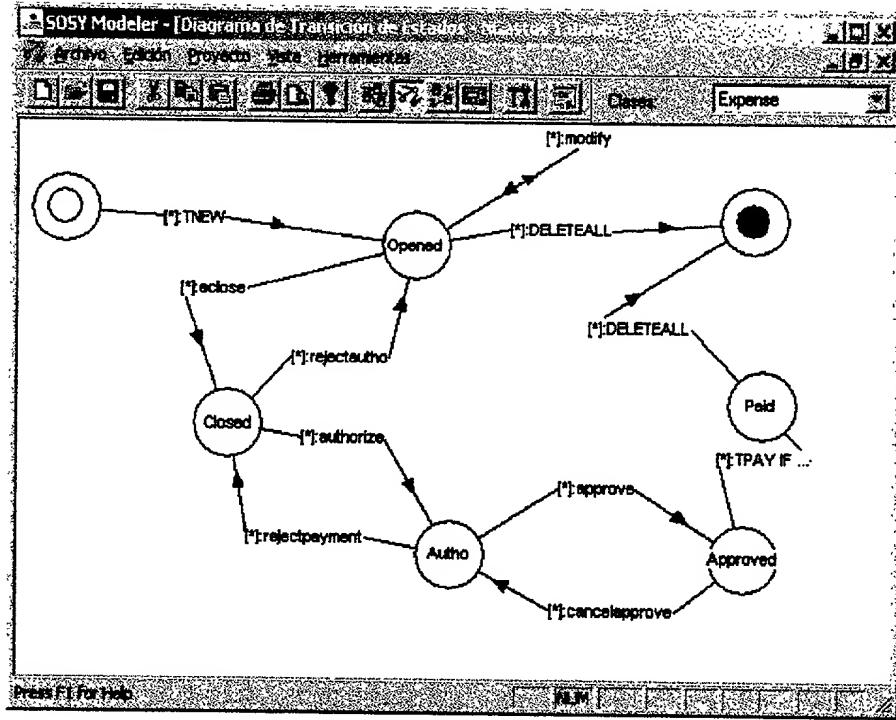
DIALOG BOX TO CREATE EVALUATION OF  
"CAUSE" ATTRIBUTE WITH THE  
"MODIFY" EVENT TO FORM PART OF  
FUNCTIONAL MODEL

FIG. 15



AGENT RELATIONSHIP DIALOG THAT CAN BE  
USED TO SET WHICH SERVICES "ACCOUNT USE"  
CAN ACCESS AND VISIBILITY OF CLASS  
ATTRIBUTES FOR THIS USER

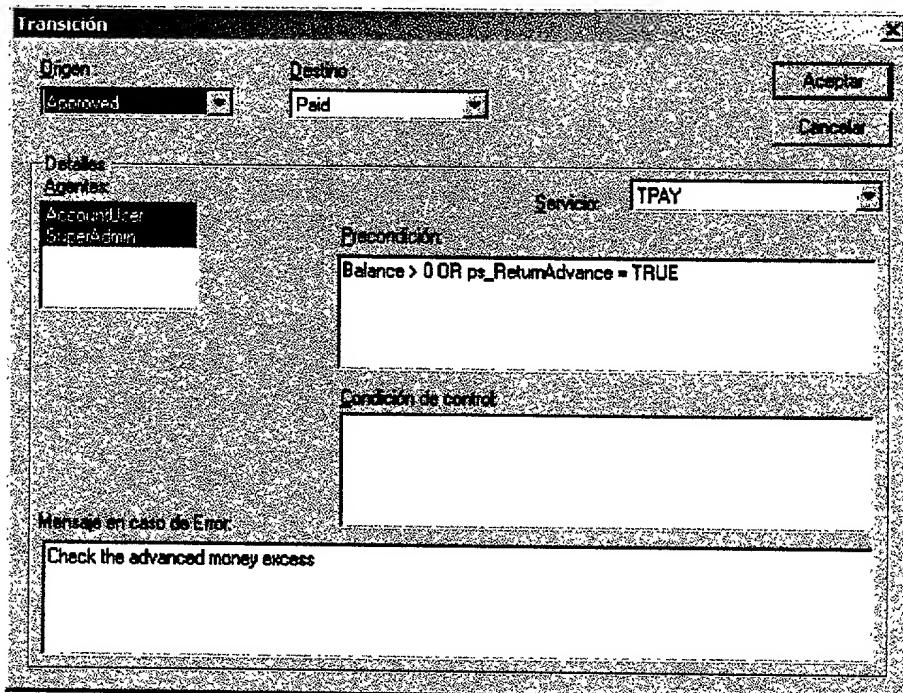
FIG. 16



STATE TRANSITION DIAGRAM FOR CLASS "EXPENSE"

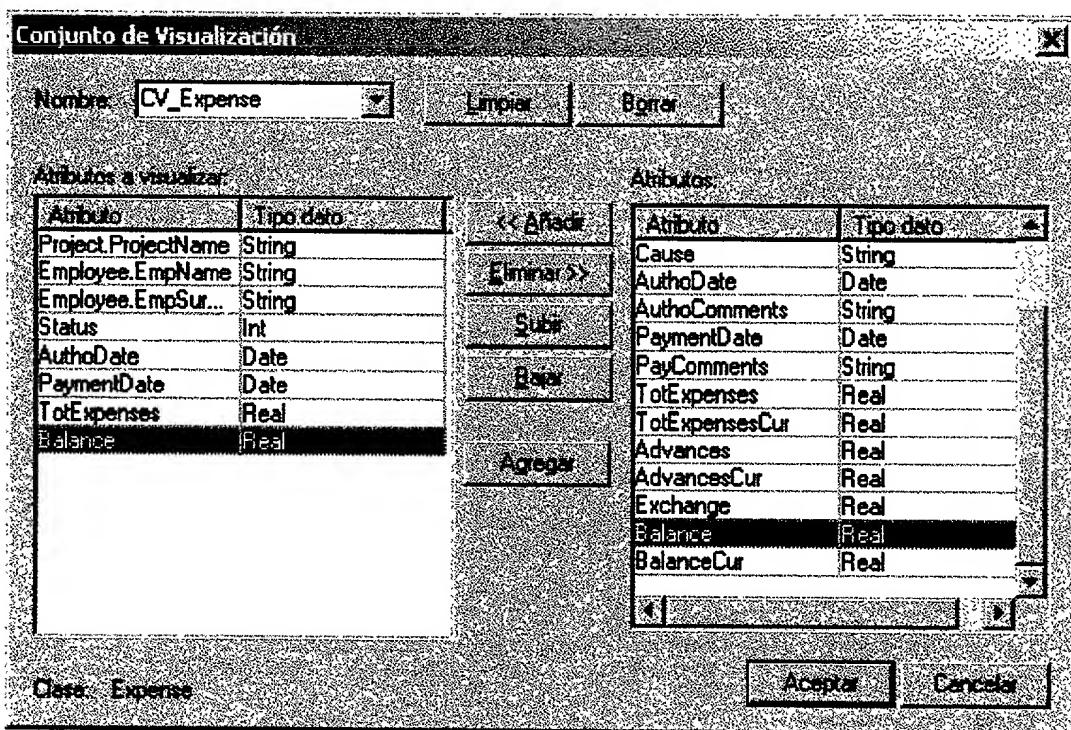
FIG. 17

*According to last paragraph of Procedure, if the Advances are greater than total expenses, the system must force the confirmation of the account user. It is expressed as a precondition in the "TPAY" transaction. Next figure shows it.*



DIALOG BOX TO MODEL PRECONDITION

FIG. 18



DIALOG BOX USED BY SOSY MODELER  
 TO ESTABLISH A SET OF ATTRIBUTES  
 TO BE DISPLAYED FOR THE "EXPENSE" CLASS

FIG. 19

Filtro

|         |  |        |  |         |        |
|---------|--|--------|--|---------|--------|
| Filtro: | <input type="text" value="flt_Expense"/> | Alias: | <input type="text" value="Expense Reports"/> | Emplear | Borrar |
|---------|--|--------|--|---------|--------|

Fórmula:

```
Project = vf_Project AND Employee = vf_Employee AND
PresentDate >= vf_DateInIssue AND PresentDate <= vf_DateEndIssue AND
AuthoDate >= vf_DateInApp AND AuthoDate <= vf_DateEndApp AND
PaymentDate >= vf_DateInPay AND PaymentDate <= vf_DateEndPay AND
```

Observ.

Nueva  
Modifica  
Borrar

Variables

| Nombre          | Alias                  | Tipo dato | Tipo estilo    | Estado |          |
|-----------------|------------------------|-----------|----------------|--------|----------|
| vf_Project      | Project                | Project   | Sel. Población |        | Nueva    |
| vf_Employee     | Employee               | Employees | Sel. Población |        | Modifica |
| vf_DateInIssue  | Initial Issuing Date   | Date      |                |        |          |
| vf_DateEndIssue | Final Issuing Date     | Date      |                |        |          |
| vf_DateInApp    | Initial Approving D... | Date      |                |        | Borrar   |

Tipo

Simple

Objeto-valores

Nombre:   
Estado de filtro:

Alias:   
Estado de selección:

Todas las datos:

Clase: Expense

Aceptar      Cancelar

DIALOG BOX USED BY SOSY MODELER TO ESTABLISH THE SEARCHING CRITERIA FOR THE EXPENSE CLASS AND TO ESTABLISH THE FILTER FORMULA AND THE VARIABLES TO REQUEST THE USER TO ENTER

FIG. 20

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES IN THE DOCUMENTATION GENERATOR TRANSLATOR SUBGENUS WILL PERFORM

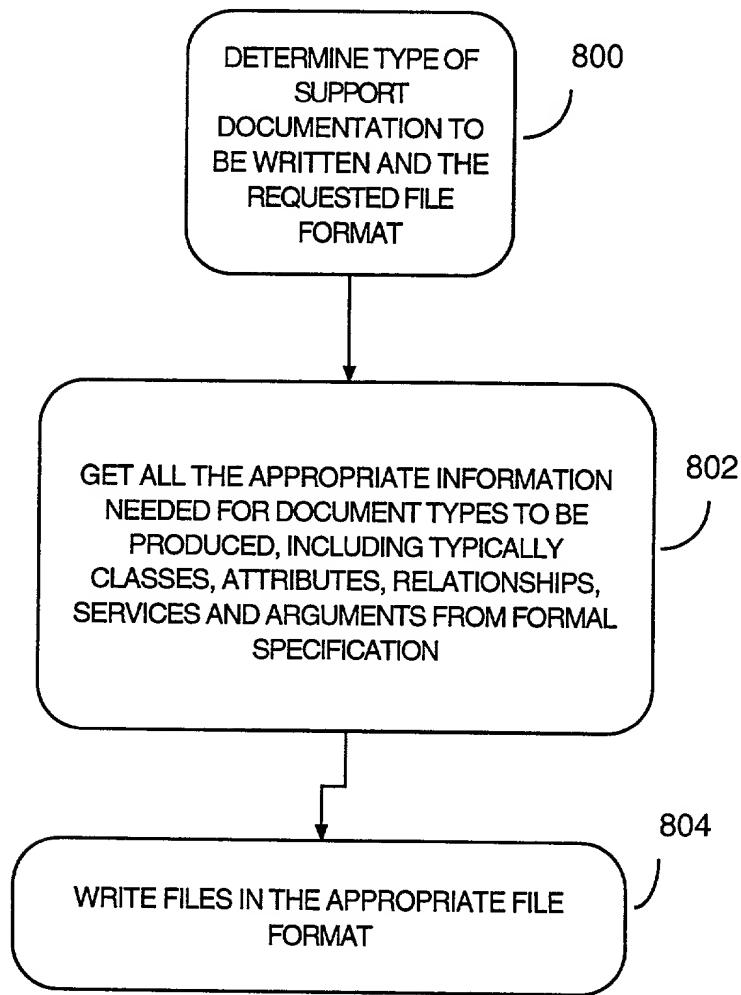


FIG. 21